What is claimed is:

1. An optical switch, comprising:

an input waveguide connected to an input optical fiber through which an optical signal is inputted;

a plurality of output waveguides connected to a plurality of output optical fibers through which the optical signal is outputted;

an actuator positioned between the input waveguide and the output waveguides, and having a micro electro mechanical systems (MEMS) structure including a fixed part and a moving part connected to the fixed part by a spring to move by a predetermined force; and

a plurality of moving waveguides assembled with the moving part of the actuator and moving in a same direction as a movement of the moving part in such a way that first ends of the moving waveguides correspond in position to the input waveguide, and second ends of the moving waveguides correspond in position to the output waveguides.

2. The optical switch as set forth in claim 1, further comprising an actuator driving part to move the moving part of the actuator using an electrostatic force.

3. The optical switch as set forth in claim 2, wherein the

actuator driving part comprises:

a comb-shaped moving electrode integrally connected to an end of the moving part of the actuator; and

a comb-shaped fixed electrode installed at a predetermined distance from the moving electrode,

whereby, the moving electrode and the moving part of the actuator integrally assembled with the moving electrode move using an electrostatic force generated by a predetermined voltage applied to the moving electrode and the fixed electrode.

4. A method of producing an optical switch, comprising:

forming a cavity on an upper side of a first silicone substrate;

bonding a second silicone substrate to the upper side of the first silicone substrate on which the cavity is formed;

polishing the second silicone substrate to a predetermined thickness;

forming an electrode layer with a predetermined thickness on the polished second silicone substrate;

etching the electrode layer to form an electrode pattern for a mask used to form a micro electro mechanical systems (MEMS) structure;

forming a plurality of waveguides including clads and cores of the second silicone substrate and the electrode

pattern; and

etching the second silicone substrate using the electrode pattern as the mask to form the MEMS structure.

5. The method as set forth in claim 4, further comprising forming an alignment mark on a lower side of the first silicone substrate, thus locating the cavity, electrode pattern, and waveguides based on a position of the alignment mark when the cavity, electrode pattern, and waveguide are formed.

6. The method as set forth in claim 4, the forming of the waveguides comprises:

depositing a lower cladding layer on the second silicone substrate and electrode pattern;

forming the cores on the lower cladding layer;

depositing an upper cladding layer on the lower cladding layer on which the cores are formed; and

removing a portion of the lower cladding layer except for a portion in which the waveguides are to be formed.